

Patent claims

1. Weaving machine for the manufacture of leno cloths, including a leno apparatus with leno elements for the forming of a shed (6), characterized in that the weaving machine (1, 1') additionally includes a cleaning apparatus integrated into the weaving machine (1, 1') for the removal of contaminations in the region of the leno apparatus and/or the shed.
2. Weaving machine in accordance with claim 1, with the weaving machine (1, 1') being equipped in a known manner with a reed (2, 2'), and with the leno elements including guide elements (7, 7') and a deflection element (5, 5') for ground threads (4, 4') as well as leno thread guide elements (8, 8'), characterized in that the integrated cleaning apparatus includes one or more nozzles (10.1-10.3, 11, 11', 12.1-12.4, 13),  
with one or more of the nozzles (12.1-12.4) being arranged in such a manner that a substantially horizontal compressed air flow (18.1-18.4) transverse to the direction of travel of the ground and leno threads (3, 3', 4, 4') can be produced in the region between the ground and leno threads by means of the nozzles (12.1-12.4), in particular in the rear part of the shed (6)  
and/or  
with at least one of the nozzles (10.1-10.3) being arranged between the reed (2, 2') and the leno thread guide elements (8, 8'), by means of which a compressed air flow (16.1-16.4) which is di-

rected downwardly through the shed (6) from above or a suction air flow (19) can be produced,

and/or

with at least one of the nozzles (11, 11') being arranged in the lower region of the leno elements, by means of which a compressed air flow (17.1-17.4) can be produced or a suction air flow which is directed towards the leno elements (5, 5', 7, 7', 8, 8').

3. Weaving machine in accordance with claim 1 or claim 2, with the integrated cleaning apparatus including at least one nozzle which is arranged so as to be movable in the longitudinal direction of the reed (2, 2') and/or at least one nozzle which is designed as a stationarily arranged slit nozzle with a horizontal slit arrangement.
4. Weaving machine in accordance with any one of the claims 1 to 3, with the deflection element (5, 5') being acted on by compressed air and including nozzles (12.1-12.4) by means of which a substantially horizontal compressed air flow (18.1-18.4) transverse to the direction of travel of the ground and leno threads (3, 3', 4, 4') can be produced in the region between the ground and leno threads.
5. Weaving machine in accordance with any one of the claims 1 to 4, including a control system in order to be able to activate the nozzles of the integrated cleaning apparatus periodically and/or cyclically and/or one after the other and/or when required.

6. Weaving machine in accordance with claim 5, with it being possible to use the weaving machine (1, 1') in a weaving mill, said weaving mill being equipped with one or more travelling clearers (31), and with the named control system being suitable for activating the integrated cleaning apparatus of the weaving machine (1, 1') in accord with the travelling clearers (31).
7. Method for cleaning a weaving machine for the manufacture of leno cloths, said weaving machine (1, 1') including a leno apparatus with leno elements for the formation of a shed (6), characterized in that contaminations in the region of the leno apparatus and/or of the shed (6) are removed by means of a cleaning apparatus which is integrated into the weaving machine (1, 1').
8. Method in accordance with claim 7, with the integrated cleaning apparatus of the weaving machine (1, 1') being activated via a control system in the weaving machine (1, 1').
9. Method in accordance with claim 7 or claim 8, with the weaving machine (1, 1') being used in a weaving mill, said weaving mill being equipped with one or more travelling clearers (31), and with the integrated cleaning apparatus of the weaving machine (1, 1') being activated in accord with the travelling clearers (31), and/or with the contaminations which are forwarded out of the shed being removed through the travelling clearers (31).
10. Method in accordance with any one of the claims 7 to 9, with the

shed (6) being formed of ground threads (4, 4') and leno threads (3, 3'), characterized in that the integrated cleaning apparatus includes a plurality of nozzles (12.1-12-4) by means of which a substantially horizontal compressed air flow (18.1-18.4) which is transverse to the direction of travel of the ground and leno threads (3, 3', 4, 4') is produced in the region between the ground and leno threads, in particular in the rear part of the shed (6).

11. Method in accordance with any one of the claims 7 to 10, with the nozzles (12.1-12-4) being fed with compressed air periodically and/or cyclically and/or one after the other and/or when required.
12. Method in accordance with any one of the claims 7 to 11, with the nozzles (12.1-12-4) cooperating with at least one substantially vertically oriented nozzle (10.1-10.3) and/or with at least one nozzle (11, 11') which is oriented substantially horizontally opposite to the direction of travel of the ground and leno threads (3, 3', 4, 4').